the later deposits the new form is the only large *Planorbis* found, an interesting case of distribution in point of time in the same locality.

Whether the new *Planorbis* is to be considered a variety of *trivolvis* or a distinct species the writer is not prepared to decide at the present time. In the material examined, both fossil and recent, there are no intermediate specimens. Until more is known it had better be considered a separate species.

# A NEW FORM OF AMNICOLA FROM THE OHIO PLEISTOCENE DEPOSITS WITH NOTES ON A PHYSA FROM THE SAME FORMATION.

#### BY FRANK C. BAKER.

Recently, Dr. M. M. Leighton, of the Department of Geology of the University of Illinois, placed in my hands for study a large collection of Pleistocene fossil mollusks from a marl deposit near Rush Lake, Logan County, Ohio. One of the species represented appears to be a new race of a recent species. The deposit is in the older Wisconsin drift. A paper is in preparation describing the fauna of this deposit as well as that of a possibly older deposit in Bartholomew County, Indiana, in both of which a number of interesting cases of distribution occur. I am indebted to Dr. H. A. Pilsbry and Dr. Bryant Walker for assistance in determining the affinities of the species discussed in this paper.

#### AMNICOLA WINKLEYI LEIGHTONI n. var.

Shell differing from A. winkleyi in being larger, heavier, wider in proportion to its height, the body whorl being more globose than in the typical form; there are  $4\frac{1}{2}$  whorls, the upper part of which is somewhat flat-sided just below the suture; this is especially marked on the last whorl of some individuals; the spire whorls are rounded and the sutures deeply impressed; the first whorl is flatter than in winkleyi; the umbilicus is wider and deeper and the aperture is wider in proportion to its height than in winkleyi.

<sup>\*</sup> Contribution from the Museum of Natural History, University of Illinois, No. 10.

Length, 5.0; diameter, 3.7; length of aperture, 2.5; width, 2.0 mm. Topotype.

Length, 4.5; diameter, 3.9; length of aperture, 2.4; width,

2.0 mm. Paratype.

Length, 4.0; diameter, 3.0; length of aperture, 2.0; width, 1.5 mm. Paratype.

Specimens of A. winkleyi measure:

Length, 4.8; diameter, 3.1; length of aperture, 2.2. Nautilus, Type.

Length, 4.8; diameter, 3.0; length of aperture, 1.8; width, 1.5 mm. Topotype.

Winkleyi is a species of the New England States, its original locality being Saco, Maine, and that a form of this Amnicola should be found in Ohio, and in a Pleistocene deposit, is surprising. It is not unlikely, however, that winkleyi may occur in recent collections in the central States. The Ohio specimens seem to depart varietally from the typical form as described by Pilsbry (Nautilus, XXVI, p. 1, pl. 1, figs. 9-10). Some thousands of specimens from this Pleistocene deposit show little departure from the race as described above. Occasional globose forms occurring with winkleyi show the relationship of the form, although none have as wide a body whorl as the fossil race. It is possible that this race may occur in other Pleistocene marl deposits.

## Physa anatina Lea.

A large Physa occurring in the Rush Lake deposits differs slightly from anatina in being larger with shallower sutures and more flat-sided spire whorls; the body whorl is wider as is also the aperture; the spire is very sharply pointed and the columella has a distinct plait. Characteristic specimens measure as follows:

Length, 16.5; width, 9.0; aperture length, 11.5; width, 5.0 mm. Fossil.

Length, 17.5; width, 10.0; aperture length, 13.0; width, 5.5 mm. Fossil.

Length, 12.0; width, 7.0; aperture length, 8.5; width, 3.7 mm. Fossil.

Length, 12.0; width, 6.0. Lea's specimen.

This Physa is related to Physa anotina which is so common in the States west of the Mississippi River. The occurrence of this species so far east of its usually recorded range (it is said by Walker to extend clear across southern Michigan, however) is as surprising as is the presence of the race of the New England Amnicola winkleyi. It was at first thought to be a recognizable race of anatina but the presence of narrow individuals indicates its relation to Lea's species. It differs from Physa walkeri in having flat-sided whorls, walkeri having rounded whorls and deeply impressed sutures. Many of the Pleistocene mollusca differ somewhat from their living representatives but in most cases this difference is not enough to cause their senaration as new species or varieties. Among the Physas, also, the range of variation in the different species is known for but a few species; when this important characteristic is more generally known it will be safer to describe new species in this polymorphic genus.

### LASMIGONA VIRIDIS, RAFINESQUE, 1820.

BY L. G. FRIERSON.

The adoption of the above as the correct specific name of the old *Unio pressus Lea* having been urged by the writer (Nautillus, XXIX, Sept., 1915), Mr. Bryant Walker filed an "interference" (Nautillus, XXIX, Nov., 1915) for the purpose he stated "of suspending the general adoption of the proposed change until such time as certain important and probably conclusive facts can be obtained."

As the current year will round out a century since Rafinesque published his *viridis* the acquisition of any new facts concerning the case would seem rather remote; and as silence might be construed as consent, and the proposed "suspension" become permanent, the writer, with the consent of Nautilus, makes bold to again appear in court.

Rafinesque ascribed to his species the following characters: Shell inequilateral, elliptical, obliquely truncate posteriorly. A little convex; hardly thick.